

Reliability and Safety Working Group (RSWG) meeting 14 June 2012

From	johnsT	15 June 2012
Date and time of Meeting	14 June 2012, 10:00	
Location	UKPN, Newington House, London	

1. Present

Phil Mann (PMa)	Western Power Distribution (WPD)
Ruth Crascall (RC)	Western Power Distribution (WPD)
Jonathan Booth (JB)	Electricity North West (ENWL)
Steve Cox (SC)	Electricity North West (ENWL)
Iain Miller (IM)	Northern Powergrid (NPG)
Rob Friel (RF)	UK Power Networks (UKPN)
Ben Gilding (BG)	UK Power Networks (UKPN)
Jane Wilkie (JW)	Scottish Power (SP)
Graeme Vincent (GV)	Scottish Power (SP)
John Smart (JS)	Scottish & Southern Electricity Distribution (SSE)
Ian Mulvaney (IS)	DECC
James Hope (JH)	Ofgem
Thomas Johns (TJ)	Ofgem
Lawrence Irlam (LI)	Ofgem
Martin Hughes (MH)	Ofgem

2. Introductions and Working Arrangements

2.1. TJ & JH introduced the meeting and the group did introductions around the room. JH explained that Ofgem intends to continue the working groups beyond September to ensure consistency and effective working between the relevant September and February papers. MH ran through the outstanding and completed actions relating to the load-related expenditure from the RSWG action log.

3. Load-related expenditure – Overview of DPCR5 approach to expenditure benchmarking

3.1. TJ explained that one of the intentions of the meeting was to break down the various techniques and approaches used for Load-related expenditure at DPCR5 and understand which could be applicable to RII0-ED1 and which might need re-examining from first principals. JH explained that Ofgem were in the process of developing a questionnaire to gather DNO's considered views on all the relevant issues around load-related expenditure in writing to enable the effective targeting of workload for the September document and beyond.

Action point:
Ofgem to circulate questionnaire to collaborate DNO views

Person – JH
By 22nd June

3.2. TJ ran through the slides detailing the analytical tools and uncertainty mechanisms used to set load-related expenditure baselines for DPCR5. On the slides detailing the approach used for the primary network, IM sought to explain that the ratios of new capacity: growth in maximum demand were compared to long-run averages for the same DNO to allow for specific network characteristics dealt with by individual DNOs. JB

explained that there was a final step that was undertaken in the load modelling; the individual elements of the projects proposed by the DNOs were run through Ofgem's asset replacement model to determine whether the "construction costs" were being efficiently incurred. To this end, the primary network load modelling consisted of a three step process

1. Assessment of the forecast capacity added by DNO schemes relative to the growth in maximum demand at its location – this ratio was compared across DNOs and vs. their own historic ratio
2. Assessment of the cost of the capacity added by the DNO relative to the Modern Equivalent Asset Value (MEAV) of the DNO Network in existence – again this ratio was compared across DNOs and vs. their own historic ratio
3. Assessment of whether the individual work elements and unit costs that make up the schemes put forward were efficient via the asset replacement model

3.3. After running through the remaining elements of the DPCR5 Load-related expenditure analysis, TJ underlined that the intention of the meeting was to get DNOs' considered opinions on where the uncertainty relating to load growth and new load profiles will interact with the regulatory framework, with the DPCR5 approach a starting point for this. SC explained that in his view the framework as set out in DPCR5 is largely fit for purpose in terms of uncertainty around loading and that the real issue for RIIO-ED1 is whether the efficient use of smart technologies over and above business as usual will be incentivised through IQI. He suggested that a DNO's stance on this will be driven by the overall financial viewpoint of the specific company.

3.4. SC explained that in practical terms, the key issues that would impact on load-related expenditure as he saw it would be;

1. Any changes to the CAF rules would have sizeable impact on volumes of heat pumps
2. Dealing with increase in wind within the UK generation portfolio driving increases in demand peaks (coming from the Transmission System Operator)
3. Practical application of the real option work developed – how do we measure optionality
4. Whether costs associated with smart meter enabling technologies will be considered as part of a DNO's load-related expenditure or considered an unavoidable cost across the whole of each DNO business plan

3.5. JH explained that with regards to the business plan, it would be helpful to get these costs in a way that clearly quantifies both the overall impact on the DNO and the total costs of load-related expenditure, including any enabling technologies.

3.6. IM suggested that, whilst the techniques are largely fit for purpose, there may be some problems in terms of the likely integration of smart solutions towards the end of the ED1 period, which might not look cost effective within the ED1 period, despite being the right thing to do. TJ explained that this was the reason why Ofgem had previously emphasised the need for well-justified business plans for ED1 to reference interactions with delivery and value for money in ED2.

3.7. During discussion that developed from the slides on the Load-related expenditure reopener in place for DPCR5, IM sought clarification on whether, for ED1, there had been, or would be a conscious change in policy from Ofgem in terms of whether in future price controls, "generation" would remain separated from the "load-related" expenditure, and therefore remain outside an equivalent load-related reopener at RIIO-ED1. JH explained that he would check with internal colleagues, but was not aware of a conscious Ofgem-wide change in approach. Additionally JH stated that an extra column for generation at substations would need to be built into the LI reporting sheet for RIIO-ED1.

Action point:
Check whether demand/ generation definitional boundary has changed

**Person – JH/
TJ by 6th July**

4. Load Indices and Network Utilisation Measures

4.1. TJ further explained that with regards to the Load Index, it is difficult to identify specific elements that may or may not be applicable to ED1 without considering the different ways in which a "Load Index" or equivalent could be used in combination with the "time to connect" incentive under development in the Connections working Group (ConWG). TJ set out, as Ofgem sees it, the main approaches that can be taken with regards to this issue:

1. Could the LI be developed into a more nuanced and sophisticated measure of utilisation?
2. Could the existing metric, assessed in a slightly different manner, be used as a broad backstop for the connections incentive?

4.2. PMA presented on the practical options for developing a full utilisation metric and the difficulties that this would present (see slides 10-32). The presentation sought to clarify that the utilisation of substations at LV do not reflect the capacity available on the network and raised the questions of whether more detailed analysis would produce a more meaningful metric, whether it was practical to develop and whether any outcome could be used as a measurable secondary deliverable for RIIO-ED1.

4.3. SC presented ENWL's approach to assigning loadings and LIs to the secondary network (see slides 33-43). RF explained that UKPN have developed a similarly modelled approach to forecasting the volume of interventions on the network. There were some questions raised from other DNOs regarding whether the model actually measured the utilisation of the network at LV as it seemed to just model the network to the LV fuse. SC explained that the model could be used to model DNO specific LV network feeders and that in ENWL's experience, these largely fell into generic groups and so things like looped services could be pro-rated. Additionally, SC used the example of the impact of Electronic vehicles on LV mains, to state that the relevant information is that an intervention will be required on the main, rather than exactly the reason why the intervention was required. PMA and IM both recognised ENWL's approach as a tool for forecasting volumes in RIIO-ED1 but questioned exactly how the methodology outlined could be converted into a measurable delivery metric.

Action point:
ENWL to develop thoughts on how delivery against the loading at LV model could be assessed on an ongoing basis

**Person – SC
by 6th July**

4.4. TJ suggested that there was not necessarily a requirement for any measure applied to the secondary network to be reported/ assessed in the same manner as the primary network metric already in place. Essentially, the work on assessing the feasibility of LIs at LV was a direct result of a desire to prevent DNOs from over-investing in order to maximise returns from the connections incentive. JH added the developed questionnaire would pick up whether DNOs believe a utilisation measure is applicable at LV for ED1, and if so, whether one can be developed in time to be incorporated into business plans in 2013. JH stated that it might be appropriate if any new measure developed for LV to cover this purpose is not called an LI, as this might confuse matters if it is not assessed and measured in the same manner as the existing LIs. JB expressed an opinion that the IQI would be a stronger incentive to not over-invest than any metric that could be developed through the LI work and suggested that once the sharing factor was built into any assessment of viable approaches, a utilisation was probably not required. JH stressed that

where a DNO does not think there is a need for any of the measures put forward to the group, this should be addressed in the response to the questionnaire.

Action point: ENWL to circulate model used and input assumptions	Person – SC by 6th July
Action point: UKPN to circulate their own working on their equivalent model	Person – RF by 2nd July
Action point: SP & SSE to develop models that show exactly how strong a “time to connect” incentive would have to be to lead to them investing extensively in additional capacity ahead of need on their networks	Person – JW & GV, JS by 6th July
Action point: Results of questionnaire on LIs at LV to be fed back to FCWG	Person – JH/TJ As appropriate

4.5. IM emphasised the need to ensure that how the specific load-related issues will appear to customers should be included in Ofgem’s questionnaire. JH confirmed that it would do.

5. Required developments of Load Index for RIIO-ED1

5.1. TJ suggested that there are some areas of work that would likely require development in the context of the existing framework regardless of exactly how the Load Index is developed for RIIO-ED1:

1. Determine treatment of DSR
2. Determine treatment of Generation dominated substations
3. Develop common LI scoring criteria

5.2. SC, PMa and IM all agreed that determining a consistent set of definitions to cover these issues would need to be done before Ofgem would be able to get DNO views delivered on a consistent basis. DNOs were all in agreement that Ofgem should prescribe the loading percentages that drive a common LI scoring assessment.

Action point: DNOs to develop appropriate definitions to allow collation of DNO views on treatment of DSR and increasing levels of generation at substations within the existing LI mechanism (ie: primary network)	Person – IM to coordinate/ collate DNO views by 6th July
Action point: Ofgem to develop and circulate common approach to LI scoring	Person – JH by 6th July

6. Load Priority Index Example

6.1. A number of DNOs maintained that the UKPN LPI model provided a prioritisation that they already had within the functions of their own demand growth models. SC was supportive of the approach as a potential measure of where the CAF rules would restrict the likelihood of connections investment. RF confirmed that it was developed as a tool to determine where/ when an investment ahead of need would be appropriate.

Action point: DNOs to comment on UKPN’s model in the context of its appropriateness as an indicator of when investment ahead of need would be appropriate	Person – All DNOs by 6th July
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7. Date of next meeting

7.1. The next Reliability and Safety Working group will take place on 28th June 2012 and will cover Quality of Service and the Interruptions Incentive Scheme.

7.2. The next Reliability and Safety Working group that will cover the Load Index work covered by this meeting will take place on 12th July 2012.